

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1335282

Luminaire Tested: P3A02R359024DE010 E3A451MW

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1335282  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-77)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A02R359024DE010 E3A451MW  
Description: 3in Adjustable LED luminaire with, R35 optic, 2400K CCT AND, 90CRI , E3A451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

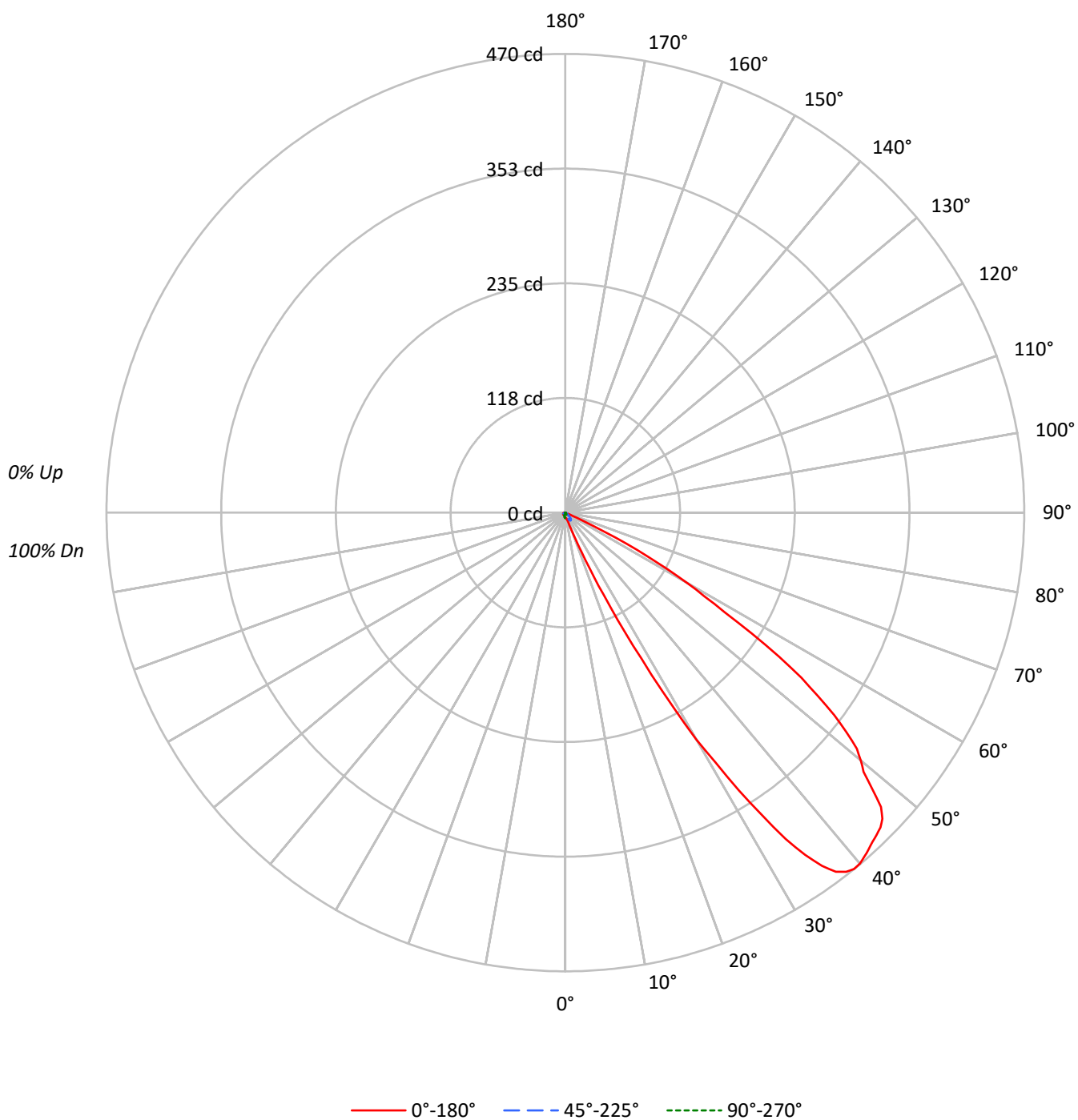
Lumens per Lamp: N/A  
Luminaire Lumens: 117.0 lumens  
Efficiency: N/A  
Efficacy: 32.5 lumens/watt  
Spacing Criteria (0/90/45): 4.01 / 0.66 / 1.41  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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CATALOG NUMBER: P3A02R359024DE010 E3A451MW

### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |     |     | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 76  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 64  | 58  | 53  | 62  | 57  | 52  |
| 5   | 75  | 62  | 52  | 46  | 73  | 61  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 55  | 49  | 44  |
| 6   | 68  | 54  | 45  | 38  | 66  | 53  | 44  | 38  | 51  | 43  | 38  | 50  | 43  | 37  | 48  | 42  | 37  |
| 7   | 62  | 48  | 38  | 32  | 60  | 47  | 38  | 32  | 45  | 37  | 32  | 44  | 37  | 31  | 42  | 36  | 31  |
| 8   | 57  | 42  | 33  | 27  | 55  | 41  | 33  | 27  | 40  | 32  | 27  | 39  | 32  | 26  | 38  | 31  | 26  |
| 9   | 52  | 38  | 29  | 23  | 50  | 37  | 29  | 23  | 36  | 28  | 23  | 35  | 28  | 22  | 34  | 27  | 22  |
| 10  | 48  | 34  | 25  | 19  | 46  | 33  | 25  | 19  | 32  | 25  | 19  | 31  | 24  | 19  | 30  | 24  | 19  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 45°  | 90°  | 135° | 180° |
|-----|--------|------|------|------|------|
| 0°  | 1184   | 1184 | 1184 | 1184 | 1184 |
| 5°  | 1277   | 1255 | 1167 | 1057 | 1013 |
| 10° | 1336   | 1225 | 1024 | 891  | 891  |
| 15° | 1907   | 1203 | 840  | 772  | 795  |
| 20° | 4807   | 1283 | 677  | 677  | 747  |
| 25° | 22308  | 1645 | 508  | 605  | 702  |
| 30° | 67808  | 2228 | 405  | 557  | 684  |
| 35° | 114626 | 2570 | 348  | 535  | 669  |
| 40° | 134366 | 2548 | 286  | 544  | 716  |
| 45° | 141503 | 1799 | 217  | 589  | 775  |
| 50° | 134682 | 1092 | 205  | 614  | 853  |
| 55° | 112856 | 459  | 229  | 688  | 994  |
| 60° | 63197  | 88   | 263  | 789  | 1096 |
| 65° | 10896  | 52   | 259  | 882  | 1245 |
| 70° | 192    | 64   | 321  | 962  | 1410 |
| 75° | 169    | 85   | 424  | 1101 | 1610 |
| 80° | 126    | 126  | 505  | 1263 | 1894 |
| 85° | 0      | 252  | 1006 | 1258 | 2013 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 46°

Luminance: 142492 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 0.5    | 0.4       |
| 10°-20°   | 1.4    | 1.2       |
| 20°-30°   | 7.2    | 6.1       |
| 30°-40°   | 31.0   | 26.5      |
| 40°-50°   | 44.2   | 37.8      |
| 50°-60°   | 27.4   | 23.4      |
| 60°-70°   | 4.2    | 3.6       |
| 70°-80°   | 0.8    | 0.7       |
| 80°-90°   | 0.4    | 0.3       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-30°    | 9.0    | 7.7       |
| 0°-40°    | 40.0   | 34.2      |
| 0°-60°    | 111.7  | 95.5      |
| 0°-90°    | 117.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 117.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 5   | 5   | 5   | 5    | 5    |      |
| 5°  | 6   | 6   | 5   | 5    | 5    | 1    |
| 15° | 8   | 5   | 4   | 3    | 4    | 3    |
| 25° | 92  | 7   | 2   | 2    | 3    | 55   |
| 35° | 428 | 10  | 1   | 2    | 2    | 257  |
| 45° | 456 | 6   | 1   | 2    | 2    | 345  |
| 55° | 295 | 1   | 1   | 2    | 3    | 251  |
| 65° | 21  | 0   | 0   | 2    | 2    | 43   |
| 75° | 0   | 0   | 0   | 1    | 2    | 0    |
| 85° | 0   | 0   | 0   | 0    | 1    | 0    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1335282

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°  | 45° | 67.5° | 90° | 112.5° |
|-------|-------|-------|-------|-------|-------|-------|------|-----|-------|-----|--------|
| 0°    | 5.4   | 5.4   | 5.4   | 5.4   | 5.4   | 5.4   | 5.4  | 5.4 | 5.4   | 5.4 | 5.4    |
| 2.5°  | 5.6   | 5.6   | 5.6   | 5.6   | 5.6   | 5.6   | 5.6  | 5.6 | 5.6   | 5.4 | 5.3    |
| 5°    | 5.8   | 5.8   | 5.7   | 5.7   | 5.7   | 5.7   | 5.7  | 5.7 | 5.5   | 5.3 | 5.0    |
| 7.5°  | 5.9   | 5.9   | 5.8   | 5.8   | 5.8   | 5.8   | 5.7  | 5.6 | 5.4   | 5.0 | 4.6    |
| 10°   | 6.0   | 6.0   | 6.0   | 6.0   | 5.9   | 5.8   | 5.7  | 5.5 | 5.2   | 4.6 | 4.3    |
| 12.5° | 6.8   | 6.8   | 6.7   | 6.4   | 6.2   | 6.0   | 5.8  | 5.4 | 4.8   | 4.2 | 3.9    |
| 15°   | 8.4   | 8.3   | 8.1   | 7.8   | 7.4   | 6.9   | 6.4  | 5.3 | 4.3   | 3.7 | 3.5    |
| 17.5° | 11.8  | 11.6  | 11.3  | 10.2  | 9.3   | 8.3   | 7.5  | 5.3 | 3.9   | 3.3 | 3.1    |
| 20°   | 20.6  | 20.7  | 18.5  | 15.9  | 13.8  | 11.5  | 9.4  | 5.5 | 3.5   | 2.9 | 2.7    |
| 22.5° | 43.0  | 41.3  | 36.0  | 29.9  | 22.8  | 17.6  | 13.3 | 6.0 | 3.1   | 2.4 | 2.4    |
| 25°   | 92.2  | 85.8  | 73.0  | 55.1  | 38.9  | 27.6  | 19.3 | 6.8 | 2.7   | 2.1 | 2.2    |
| 27.5° | 168.4 | 162.5 | 136.9 | 103.1 | 68.4  | 41.6  | 26.2 | 7.7 | 2.4   | 1.8 | 2.0    |
| 30°   | 267.8 | 251.8 | 218.3 | 169.0 | 114.4 | 63.7  | 35.2 | 8.8 | 2.0   | 1.6 | 1.9    |
| 31°   | 298.9 | 291.5 | 250.7 | 195.5 | 134.0 | 75.6  | 39.0 | 9.1 | 1.9   | 1.6 | 1.8    |
| 32°   | 335.8 | 322.7 | 286.1 | 224.5 | 154.0 | 86.3  | 43.5 | 9.4 | 1.8   | 1.4 | 1.8    |
| 33°   | 368.7 | 356.0 | 311.6 | 250.1 | 174.2 | 98.4  | 48.4 | 9.5 | 1.6   | 1.4 | 1.7    |
| 34°   | 403.4 | 386.0 | 342.0 | 276.8 | 194.9 | 111.5 | 52.8 | 9.6 | 1.5   | 1.3 | 1.7    |
| 35°   | 428.2 | 410.9 | 368.2 | 297.9 | 212.7 | 123.2 | 57.9 | 9.6 | 1.4   | 1.3 | 1.6    |
| 36°   | 447.4 | 432.2 | 390.8 | 319.7 | 230.5 | 133.6 | 61.9 | 9.6 | 1.2   | 1.2 | 1.6    |
| 37°   | 460.6 | 446.1 | 406.0 | 338.4 | 244.0 | 142.9 | 65.5 | 9.6 | 1.1   | 1.2 | 1.6    |
| 38°   | 467.0 | 455.0 | 420.7 | 352.0 | 257.1 | 150.2 | 68.3 | 9.4 | 1.0   | 1.1 | 1.5    |
| 39°   | 469.8 | 460.0 | 429.7 | 363.5 | 266.9 | 156.5 | 70.4 | 9.2 | 0.8   | 1.1 | 1.5    |
| 40°   | 469.4 | 460.8 | 434.7 | 371.5 | 274.8 | 160.9 | 71.6 | 8.9 | 0.7   | 1.0 | 1.5    |
| 41°   | 466.9 | 459.5 | 437.4 | 378.2 | 279.6 | 163.8 | 71.9 | 8.6 | 0.6   | 1.0 | 1.4    |
| 42°   | 464.2 | 457.4 | 438.2 | 381.8 | 282.6 | 164.8 | 71.1 | 8.1 | 0.6   | 0.8 | 1.4    |
| 43°   | 461.3 | 455.1 | 438.2 | 383.0 | 283.4 | 164.1 | 69.7 | 7.4 | 0.5   | 0.8 | 1.4    |
| 44°   | 459.0 | 453.1 | 436.8 | 382.7 | 281.8 | 161.7 | 67.2 | 6.5 | 0.4   | 0.8 | 1.4    |
| 45°   | 456.3 | 450.5 | 435.0 | 380.6 | 278.7 | 157.6 | 64.0 | 5.8 | 0.3   | 0.7 | 1.4    |
| 46°   | 451.4 | 446.9 | 431.9 | 376.5 | 273.9 | 151.9 | 60.0 | 5.3 | 0.2   | 0.7 | 1.3    |
| 47°   | 442.0 | 438.1 | 425.7 | 370.4 | 267.4 | 145.1 | 55.9 | 4.8 | 0.2   | 0.7 | 1.3    |
| 48°   | 423.1 | 423.0 | 413.5 | 359.0 | 257.2 | 136.7 | 51.5 | 4.2 | 0.2   | 0.7 | 1.3    |
| 49°   | 404.8 | 402.9 | 391.1 | 338.9 | 242.5 | 126.5 | 47.0 | 3.8 | 0.1   | 0.7 | 1.3    |
| 50°   | 394.8 | 390.7 | 371.2 | 315.3 | 223.7 | 112.5 | 42.1 | 3.2 | 0.1   | 0.6 | 1.3    |
| 51°   | 384.3 | 378.4 | 355.5 | 293.9 | 201.3 | 99.0  | 36.9 | 2.5 | 0.1   | 0.6 | 1.2    |
| 52°   | 365.4 | 359.8 | 334.2 | 273.5 | 179.5 | 85.1  | 31.8 | 2.1 | 0.1   | 0.6 | 1.3    |
| 53°   | 345.1 | 337.0 | 309.1 | 251.2 | 160.4 | 72.9  | 26.6 | 1.8 | 0.1   | 0.6 | 1.2    |
| 54°   | 319.4 | 315.8 | 283.8 | 223.7 | 138.0 | 61.0  | 21.9 | 1.5 | 0.1   | 0.6 | 1.2    |
| 55°   | 295.2 | 289.9 | 256.7 | 195.6 | 117.8 | 50.1  | 18.3 | 1.2 | 0.1   | 0.6 | 1.2    |
| 56°   | 264.4 | 256.4 | 225.3 | 169.8 | 97.2  | 40.3  | 15.4 | 1.0 | 0.1   | 0.6 | 1.2    |
| 57°   | 227.6 | 219.2 | 194.5 | 141.2 | 76.3  | 30.7  | 12.9 | 0.7 | 0.1   | 0.6 | 1.2    |
| 58°   | 192.5 | 185.3 | 158.8 | 109.0 | 57.5  | 21.3  | 10.7 | 0.5 | 0.1   | 0.5 | 1.2    |
| 59°   | 166.3 | 158.3 | 132.1 | 83.9  | 39.9  | 15.7  | 8.0  | 0.4 | 0.1   | 0.6 | 1.2    |
| 60°   | 144.1 | 133.7 | 106.4 | 65.0  | 28.5  | 11.3  | 5.9  | 0.2 | 0.2   | 0.6 | 1.2    |
| 62.5° | 83.0  | 73.3  | 50.8  | 26.4  | 11.7  | 5.8   | 2.9  | 0.1 | 0.2   | 0.6 | 1.2    |
| 65°   | 21.0  | 18.7  | 12.1  | 5.7   | 3.3   | 2.0   | 1.1  | 0.1 | 0.2   | 0.5 | 1.1    |



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**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 5°  | 10° | 15° | 20° | 25° | 30° | 45° | 67.5° | 90° | 112.5° |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-------|-----|--------|
| 67.5° | 0.7 | 0.7 | 0.7 | 0.6 | 0.5 | 0.4 | 0.2 | 0.1 | 0.2   | 0.5 | 1.1    |
| 70°   | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2   | 0.5 | 1.0    |
| 72.5° | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.5 | 0.8    |
| 75°   | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.5 | 0.8    |
| 77.5° | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.4 | 0.7    |
| 80°   | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.4 | 0.6    |
| 82.5° | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3   | 0.4 | 0.5    |
| 85°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.3   | 0.4 | 0.4    |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3   | 0.4 | 0.3    |
| 90°   | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0   | 0.0 | 0.0    |

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**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 5.4  | 5.4    | 5.4  |
| 2.5°  | 5.1  | 5.1    | 5.1  |
| 5°    | 4.8  | 4.8    | 4.6  |
| 7.5°  | 4.4  | 4.3    | 4.3  |
| 10°   | 4.0  | 4.0    | 4.0  |
| 12.5° | 3.7  | 3.7    | 3.7  |
| 15°   | 3.4  | 3.5    | 3.5  |
| 17.5° | 3.1  | 3.3    | 3.3  |
| 20°   | 2.9  | 3.1    | 3.2  |
| 22.5° | 2.6  | 2.9    | 3.0  |
| 25°   | 2.5  | 2.7    | 2.9  |
| 27.5° | 2.3  | 2.6    | 2.9  |
| 30°   | 2.2  | 2.5    | 2.7  |
| 31°   | 2.2  | 2.5    | 2.6  |
| 32°   | 2.1  | 2.5    | 2.6  |
| 33°   | 2.1  | 2.5    | 2.6  |
| 34°   | 2.1  | 2.4    | 2.6  |
| 35°   | 2.0  | 2.4    | 2.5  |
| 36°   | 2.0  | 2.4    | 2.5  |
| 37°   | 2.0  | 2.4    | 2.6  |
| 38°   | 2.0  | 2.4    | 2.5  |
| 39°   | 1.9  | 2.4    | 2.5  |
| 40°   | 1.9  | 2.4    | 2.5  |
| 41°   | 1.9  | 2.4    | 2.5  |
| 42°   | 1.9  | 2.4    | 2.5  |
| 43°   | 1.9  | 2.4    | 2.5  |
| 44°   | 1.9  | 2.3    | 2.5  |
| 45°   | 1.9  | 2.3    | 2.5  |
| 46°   | 1.9  | 2.4    | 2.5  |
| 47°   | 1.9  | 2.4    | 2.6  |
| 48°   | 1.9  | 2.3    | 2.5  |
| 49°   | 1.8  | 2.3    | 2.5  |
| 50°   | 1.8  | 2.3    | 2.5  |
| 51°   | 1.8  | 2.4    | 2.6  |
| 52°   | 1.8  | 2.4    | 2.6  |
| 53°   | 1.8  | 2.4    | 2.6  |
| 54°   | 1.8  | 2.4    | 2.5  |
| 55°   | 1.8  | 2.4    | 2.6  |
| 56°   | 1.8  | 2.4    | 2.5  |
| 57°   | 1.8  | 2.4    | 2.5  |
| 58°   | 1.8  | 2.3    | 2.5  |
| 59°   | 1.8  | 2.3    | 2.5  |
| 60°   | 1.8  | 2.3    | 2.5  |
| 62.5° | 1.7  | 2.3    | 2.5  |
| 65°   | 1.7  | 2.2    | 2.4  |



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**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 67.5° | 1.6  | 2.2    | 2.3  |
| 70°   | 1.5  | 2.1    | 2.2  |
| 72.5° | 1.4  | 2.0    | 2.1  |
| 75°   | 1.3  | 1.8    | 1.9  |
| 77.5° | 1.1  | 1.6    | 1.8  |
| 80°   | 1.0  | 1.4    | 1.5  |
| 82.5° | 0.7  | 1.2    | 1.3  |
| 85°   | 0.5  | 0.8    | 0.8  |
| 87.5° | 0.2  | 0.4    | 0.4  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)